

substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkynyl, amino, acylamino, aminocarbonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, acyloxy, acylamino, sulfoxy, sulfonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>- thioalkoxy.

5. (Amended) A sulfonyl amino acid derivative according to claim 1, wherein at least one of R<sup>3</sup> and/or R<sup>4</sup> is selected from the group consisting of the following natural amino acid residues : alanyl, arginyl, asparaginy, aspartyl, cysteinyl, glutaminy, glutamyl, glycyl, histidyl, isoleucyl, leucyl, lysyl, methionyl, phenylalanyl, prolyl, seryl, threonyl, tryptophanyl, tyrosyl, valyl.

6. (Amended) A sulfonyl amino acid derivative according to claim 1, wherein Ar<sup>1</sup> is an unsubstituted or substituted phenyl, preferably 4-chlorophenyl, X is O, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are hydrogen, n is 1, Ar<sup>2</sup> is thienyl, R<sup>5</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl; R<sup>6</sup> is selected from the group comprising or consisting of H, a substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-aliphatic alkyl - e.g. a C<sub>1</sub>-C<sub>6</sub>-alkylamino aryl, a C<sub>1</sub>-C<sub>6</sub>-alkylamino heteroaryl, a substituted or unsubstituted cyclic C<sub>4</sub>-C<sub>8</sub>-alkyl containing optionally 1-3 heteroatoms and being optionally fused with an unsubstituted or substituted aryl or heteroaryl; or R<sup>6</sup> is an unsubstituted or substituted aryl or heteroaryl;

said aryl or heteroaryl groups are optionally substituted by substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkyl, like trihalomethyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxy, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkynyl, amino, acylamino, aminocarbonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfoxy, C<sub>1</sub>-C<sub>6</sub>- thio alkoxy; or

R<sup>5</sup> and R<sup>6</sup> taken together could form an unsubstituted or substituted 4-8-membered saturated cyclic alkyl or heteroalkyl group, e.g. an unsubstituted or substituted piperidino group.

7. (Amended) A sulfonyl amino acid derivative according to claim 1, wherein

*A1*  $R^5$  is H; and  $R^6$  is a  $C_1$ - $C_6$ -alkyl which is substituted by an aryl, an heteroaryl group or an aminoaryl, aminoheteroaryl, aryloxy, heteroaryloxy, whereby said aryl and heteroaryl groups are optionally substituted by substituted or unsubstituted  $C_1$ - $C_6$ -alkyl, like trihalomethyl, substituted or unsubstituted  $C_1$ - $C_6$ -alkoxy, substituted or unsubstituted  $C_2$ - $C_6$ -alkenyl, substituted or unsubstituted  $C_2$ - $C_6$ -alkynyl, amino, acylamino, aminocarbonyl, substituted or unsubstituted  $C_1$ - $C_6$ -alkoxycarbonyl, substituted or unsubstituted aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfoxy,  $C_1$ - $C_6$ -thioalkoxy.

9. (Amended) A sulfonyl amino acid derivative according to claim 1 which is selected from the following group :

4-chloro-N-((5-[(2-[(2-[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino)ethyl)-amino]-2-oxoethyl)amino)sulfonyl]thien-2-yl)methyl)benzamide

*A2* 4-chloro-N-[(5-[(2-[(2-[(5-nitropyridin-2-yl)amino)ethyl]amino)-2-oxoethyl)-amino]sulfonyl]thien-2-yl)methyl]benzamide

4-chloro-N-((5-[(2-oxo-2-[(2-[3-(trifluoromethyl)pyridin-2-yl]amino)ethyl)-amino]ethyl)amino)sulfonyl]thien-2-yl)methyl)benzamide

4-chloro-N-((5-[(2-oxo-2-[(2-[5-(trifluoromethyl)pyridin-2-yl]amino)ethyl)-amino]ethyl)amino)sulfonyl]thien-2-yl)methyl)benzamide

N-((5-[(2-[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]-2-oxoethyl)amino)-sulfonyl]thien-2-yl)methyl)-4-chlorobenzamide

4-chloro-N-[(5-[(2-oxo-2-{3-[(trifluoromethyl)sulfonyl]anilino}ethyl)amino]-sulfonyl]thien-2-yl)methyl]benzamide.

12. (Amended) Use according to claim 10 for the treatment or prevention of disorders associated with abnormal expression or activity of JNK2 and/or 3.

13. (Amended) Use of a sulfonyl amino acid derivative according to formula I in particular claim 10 for the treatment of neuronal disorders including epilepsy; Alzheimer's disease, Huntington's disease, Parkinson's disease; retinal diseases, spinal cord injury, head trauma.

14. (Amended) Use of a sulfonyl amino acid derivative according to formula I in particular according to claim 10 for the treatment of autoimmune diseases including Multiple Sclerosis, inflammatory bowel disease (IBD), rheumatoid arthritis, asthma, septic shock, transplant rejection.

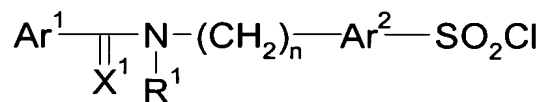
15. (Amended) Use of a sulfonyl amino acid derivative according to formula I in particular according to claim 10 for the treatment of cancer including breast-, colorectal-, pancreatic cancer.

16. (Amended) Use of a sulfonyl amino acid derivative according to formula I in particular according to claim 10 for the treatment of cardiovascular diseases including stroke, arterosclerosis, myocordial infarction, myocordial reperfusion injury.

17. (Amended) A pharmaceutical composition containing at least one sulfonyl amino acid derivative according to claim 1 and a pharmaceutically acceptable carrier, diluent or excipient thereof.

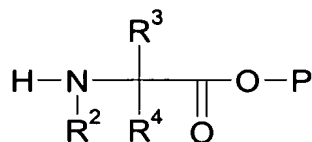
18. (Amended) Process for the preparation of a sulfonyl amino acid derivative according to claim 1 comprising or consisting of the steps of:

a) preparing a sulfonyl compound V,



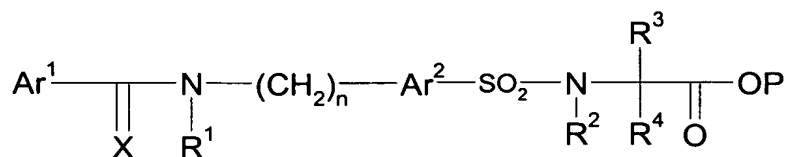
V

b) reacting it with the protected amino acid compound VIII



VIII

thus leading to a compound



IX

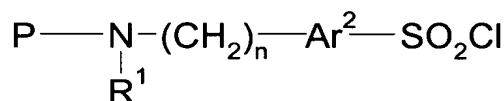
c) said compound IX is subjected to a deprotection and finally

d) a coupling.

19. (Amended) Process for the preparation of the sulfonyl amino acid derivatives

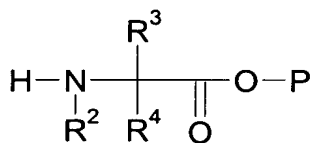
according to claim 1 comprising or consisting of the steps of:

a) preparing a protected sulfonyl compound VII



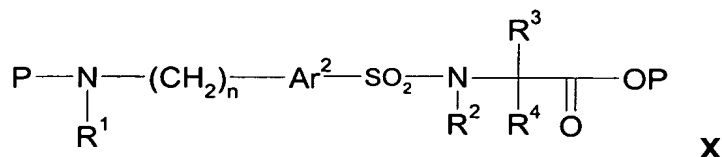
VII

b) reacting it with the protected amino acid compound VIII



VIII

thus leading to a compound



X

e) followed by deprotection;

f) coupling;

g) deprotection, and

h) acylation.

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Please add the following new claims.

20. (New) A sulfonyl amino acid derivative according to claim 2, wherein n is 1.

21. (New) A sulfonyl amino acid derivative according to claim 2, wherein Ar<sup>1</sup> and Ar<sup>2</sup> are independently selected from the group comprising or consisting of phenyl, thienyl, furyl, pyridyl, said residues being optionally substituted by at least one substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkyl, like trihalomethyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxy, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkynyl, amino, acylamino, aminocarbonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, acyloxy, acylamino, sulfoxy, sulfonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>- thioalkoxy.

22. (New) A sulfonyl amino acid derivative according to claim 2, wherein at least one of R<sup>3</sup> and/or R<sup>4</sup> is selected from the group consisting of the following natural amino acid residues : alanyl, arginyl, asparaginy, aspartyl, cysteiny, glu-taminyl, glutamyl, glycyl, histidyl, isoleucyl, leucyl, lysyl, methionyl, phenylalanyl, prolyl, seryl, threonyl, tryptophanyl, tyrosyl, valyl.

23. (New) A sulfonyl amino acid derivative according to claim 2, wherein

Ar<sup>1</sup> is an unsubstituted or substituted phenyl, preferably 4-chlorophenyl, X is O, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are hydrogen, n is 1, Ar<sup>2</sup> is thienyl, R<sup>5</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl;

R<sup>6</sup> is selected from the group comprising or consisting of H, a substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-aliphatic alkyl - e.g. a C<sub>1</sub>-C<sub>6</sub>-alkylamino aryl, a C<sub>1</sub>-C<sub>6</sub>-alkylamino

A4

heteroaryl, a substituted or unsubstituted cyclic C<sub>4</sub>-C<sub>8</sub>-alkyl containing optionally 1-3 heteroatoms and being optionally fused with an unsubstituted or substituted aryl or heteroaryl; or R<sup>6</sup> is an unsubstituted or substituted aryl or heteroaryl;

said aryl or heteroaryl groups are optionally substituted by substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkyl, like trihalomethyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxy, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkynyl, amino, acylamino, aminocarbonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfoxy, C<sub>1</sub>-C<sub>6</sub>-thioalkoxy; or

R<sup>5</sup> and R<sup>6</sup> taken together could form an unsubstituted or substituted 4-8-membered saturated cyclic alkyl or heteroalkyl group, e.g. an unsubstituted or substituted piperidino group.

24. (New) A sulfonyl amino acid derivative according to claim 2, wherein

R<sup>5</sup> is H; and R<sup>6</sup> is a C<sub>1</sub>-C<sub>6</sub>-alkyl which is substituted by an aryl, an heteroaryl group or an aminoaryl, aminoheteroaryl, aryloxy, heteroaryloxy, whereby said aryl and heteroaryl groups are optionally substituted by substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkyl, like trihalomethyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxy, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkynyl, amino, acylamino, aminocarbonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, substituted or unsubstituted aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfoxy, C<sub>1</sub>-C<sub>6</sub>-thioalkoxy.

25. (New) A sulfonyl amino acid derivative according to claim 24 which is selected from the following group :

4-chloro-N-({5-[(2-[(3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino)ethyl]-amino]-2-oxoethyl}amino)sulfonyl]thien-2-yl)methyl)benzamide

4-chloro-N-[(5-{(2-[(5-nitropyridin-2-yl)amino)ethyl]amino)-2-oxoethyl}-amino)sulfonyl]thien-2-yl)methyl]benzamide

4-chloro-N-({5-[(2-oxo-2-[(2-{[3-(trifluoromethyl)pyridin-2-yl]amino}ethyl)-amino]ethyl}amino)sulfonyl]thien-2-yl)methyl)benzamide

4-chloro-N-({5-[(2-oxo-2-[(2-{[5-(trifluoromethyl)pyridin-2-yl]amino}ethyl)-amino]ethyl}amino)sulfonyl]thien-2-yl)methyl)benzamide

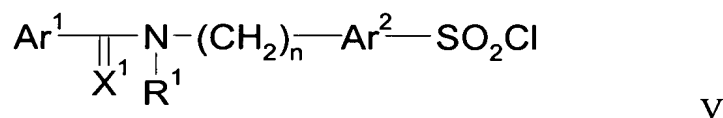
N-({5-[(2-[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]-2-oxoethyl}amino)-sulfonyl]thien-2-yl)methyl)-4-chlorobenzamide

4-chloro-N-[(5-{[(2-oxo-2-{3-[(trifluoromethyl)sulfonyl]anilino}ethyl)amino]-sulfonyl}thien-2-yl)methyl]benzamide.

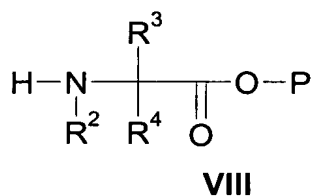
26. (New) A pharmaceutical composition containing at least one sulfonyl amino acid derivative according to claim 2 and a pharmaceutically acceptable carrier, diluent or excipient thereof.

27. (New) Process for the preparation of a sulfonyl amino acid derivative according to claim 2 comprising or consisting of the steps of:

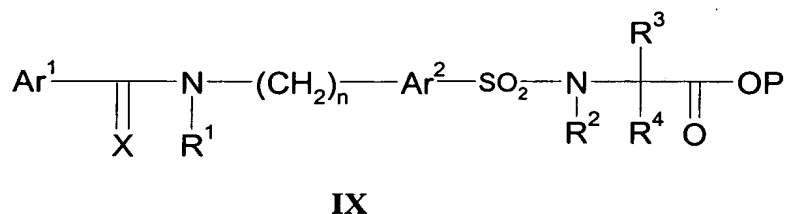
a) preparing a sulfonyl compound V,



b) reacting it with the protected amino acid compound VIII



thus leading to a compound

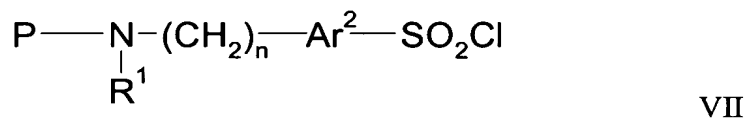


c) said compound IX is subjected to a deprotection and finally

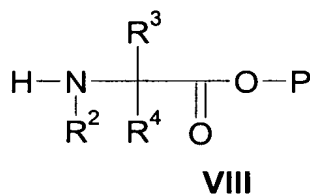
d) a coupling.

28. (New) Process for the preparation of the sulfonyl amino acid derivatives according to claim 2 comprising or consisting of the steps of:

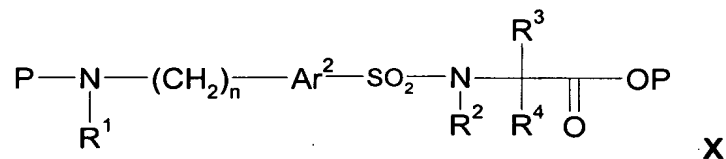
a) preparing a protected sulfonyl compound VII



b) reacting it with the protected amino acid compound VIII



thus leading to a compound



e) followed by deprotection;

f) coupling;

g) deprotection, and

h) acylation.